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PTO/SB/21 (02-04)

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/669,956	
	Filing Date	September 23, 2003	
	First Named Inventor	Haiyou Wang	
	Art Unit	1744	
	Examiner Name	Not Assigned	
Total Number of Pages in This Submission	161	Attorney Docket Number	17462-6

ENCLOSURES (Check all that apply)		
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Henry E. Naylor Kean, Miller, Hawthorne, D'Armond, McCowan & Jarman, L.L.P.
Signature	
Date	7/12/2004

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IN THE UNITED STATES OF AMERICA
PATENT AND TRADEMARK OFFICE

APPLICANT(S): HAIYOU WANG
R. TERRY K. BAKER

TITLE: CO-FREE HYDROGEN FROM DECOMPOSITION OF
METHANE

DOCKET NO.: 17462-6

MAIL STOP PATENT APPLICATION
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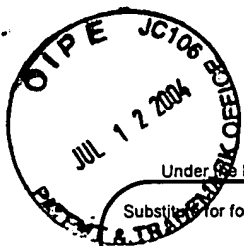
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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number 10/669,956

Filing Date September 23, 2003

First Named Inventor Haiyou Wang

Art Unit 1744

Examiner Name Unknown

Attorney Docket Number 17462-6

Sheet

1

of

2

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	1	P. Chen, H.-B., Zhang, G.-D. Lin, Q. Hong and K.R. Tsai "Growth of Carbon Nanotubes by Catalytic Decomposition of CH ₄ or CO on A Ni-MgO Catalyst", Carbon Vol. 35, No. 10-11, pp. 1495-1501, Great Britain, 1997.	
	2	Sakae Takenaka, Hitoshi Ogiwara, Ichiro Yamanaka, Kiyoshi Otsuka, "Decomposition of methane over supported-Ni catalysts: effects of the supports on the catalytic lifetime", Applied Catalysis A: General 217 (2001) pp. 101-110.	
	3	M.A. Ermakova, D. Yu. Ermakov, G.G. Kuvshinov, and L.M. Plyasova, "New Nickel Catalysts for the Formation of Filamentous Carbon in the reaction of Methane Decomposition", Journal of Catalysis 187, pp. 77-84 (1999).	
	4	M.A. Ermakova, D.Yu. Ermakov, G.G. Kuvshinov, "Effective catalysts for direct cracking of methane to produce hydrogen and filamentous carbon", Applied Catalysis A: General 201 (2000) pp. 61-70.	
	5	B. Monnerat, L. Kiwi-Minsker, A. Renken, "Hydrogen production by catalytic cracking of methane over nickel gauze under periodic reactor operation", Chemical Engineering Science 56 (2001) pp. 633-639.	
	6	Nazim Muradov, "Hydrogen via methane decomposition: an application for decarbonization of fossil fuels", International Journal of Hydrogen Energy 26 (2001) pp. 1165-1175.	
	7	M.A. Ermakova, D. Yu. Ermakov, "Ni/SiO ₂ and Fe/SiO ₂ catalysts for production of hydrogen and filamentous carbon via methane decomposition", Catalysis Today 77 (2002) pp. 225-235.	
	8	Bjorn Gaudernack and Steinar Lynum, "Hydrogen from Natural Gas without Release of CO ₂ to the Atmosphere", Int. J. Hydrogen Energy, Vol. 23, No. 12, pp. 1087-1093, 1998.	
	9	T.V. Choudhary, C. Sivadinarayana, C.C. Chusuei, A. Klinghoffer, and D. W. Goodman, "Hydrogen Production via Catalytic Decomposition of Methane", Journal of Catalysis 199, pp. 9-18 (2001).	
	10	M. G. Poirier and C. Sapundzhiev, "Catalytic Decomposition of Natural Gas to Hydrogen for Fuel Cell Applications", Int. J. Hydrogen Energy, Vol. 22, No. 4, pp. 429-433, 1997.	

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SignatureDate
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Substitute for form 1449/PTO <h2 style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center;">(Use as many sheets as necessary)</p>		Complete if Known	
		Application Number	10/669,956
		Filing Date	September 23, 2003
		First Named Inventor	Haiyou Wang
		Art Unit	1744
		Examiner Name	Unknown
		Attorney Docket Number	17462-6
Sheet	2	of	2

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	12	Rita Aiello, Jeffrey E. Fiscus, Hans-Conrad zur Loye, Michael D. Amiridis, "Hydrogen production via the direct cracking of methane over Ni/SiO ₂ : catalyst deactivation and regeneration", Applied Catalysis A: General 192 (2000) pp. 227-234	
	13	Lingyu Piao, Yongdan Li, Jiuling Chen, Liu Chang, Jerry Y.S. Lin, "Methane decomposition to carbon nanotubes and hydrogen on an alumina supported nickel aerogel catalyst", Catalysis Today 74 (2002) pp. 145-155.	
	14	T. Ishihara, A. Kawahara, A. Fukunaga, H. Nishiguchi, H. Shinkai, M. Miyaki, and Y. Takita, "CH ₄ Decomposition with a Pd-Ag Hydrogen-Permeating Membrane Reactor for Hydrogen Production at Decreased Temperature", Ind. Eng. Chem. Res. 2002, 41, pp. 3365-3369.	
	15	V. R. Choudhary, S. Banerjee, and A. M. Rajput, "Continuous Production of H ₂ at Low Temperature from Methane Decomposition over Ni-Containing Catalyst Followed by Gasification by Steam of the Carbon on the Catalyst in Two Parallel Reactors Operated in Cyclic Manner, Journal of Catalysts 198, 136-141	
	16	Naresh Shah, Devadas Panjala, and Gerald P. Huffman, "Hydrogen Production by Catalytic Decomposition of Methane", Energy & Fuels 2001, 15, pp. 1528-1534.	
	17	Zongquan Li, Jiuling Chen, Xixiang Zhang, Yongdan Li, Kwok Kwong Fung, "Catalytic synthesized carbon nanostructures from methane using nanocrystalline Ni", Carbon 40 (2002), pp. 409-415.	
	18	Tiejun Zhang, Michael D. Amiridis, "Hydrogen production via the direct cracking of methane over silica-supported nickel catalysts", Applied Catalysis A: General 167 (1998) pp. 161-172.	
	19	Yongdan Li, Jiuling Chen, Yongning Qin, and Liu Chang, "Simultaneous Production of Hydrogen and Nanocarbon from Decomposition of Methane on a Nickel-Based Catalyst", Energy & Fuels 2000, 14, pp. 1188-1194.	

Examiner Signature		Date Considered	
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